REMARKS

The present application was filed on April 2, 1999 with claims 1-23. In a response dated May 2, 2001, Applicant added new claims 24-27 for consideration. In the outstanding Office Action dated April 2, 2002, the Examiner has: (i) rejected claims 1-4, 7, 12-15, 18, 23, 24 and 26 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,930,784 issued to Hendrickson (hereinafter "Hendrickson"); and (ii) rejected claims 5, 6, 8-11, 16, 17, 19-22, 25 and 27 under 35 U.S.C. §103(a) as being unpatentable over Hendrickson in view of U.S. Patent No. 5,970,490 issued to Morgenstern et al. (hereinafter "Morgenstern").

In this response, Applicant: (i) amends independent claims 1, 12 and 23; and (ii) traverses the §103(a) rejections. Applicant respectfully requests reconsideration of the present application in view of the following remarks.

Applicant has amended independent claims 1, 12 and 23 in an effort to further clarify the subject matter of the present invention. Support for the amendment is found throughout the present specification, for example, at page 7, lines 24 through 27; at page 8, lines 9 through 19; and at page 9, lines 6 through 18.

Applicant respectfully asserts that Hendrickson alone, and the combination of Hendrickson with Morganstern, fails to teach or suggest all of the limitations in independent claims 1, 12, 23, 24 and 26. Thus, for at least this reason, the Office Action fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143.

The present invention, for example as recited in independent claim 1, defines a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements. The method comprises the steps of: (i) determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset; and (ii) computing at least one distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric. The independent claim has been amended to further clarify that the determination step is based on structures associated with the source dataset and the target dataset. Independent claim 12 defines a similar apparatus-based invention, while independent claim 23 defines a similar

article of manufacture-based invention. Independent claims 24 and 26 recite other embodiments of such automated navigation techniques. Each independent claim recites that the best match determination is based on structures associated with the source dataset and at least one target dataset.

Hendrickson, on the other hand, discloses a method for locating related items in a geometric space which transforms relationships among items to geometric locations. The method locates items in the geometric space so that the distance between items corresponds to the degree of relatedness. The method attempts to facilitate communication of the structure of the relationships among the items. Hendrickson suggests that the method is especially beneficial for communicating databases with many items, and with non-regular relationship patterns. Examples of such databases with non-regular relationship patterns include databases containing items such as scientific papers or patents, related by citations or keywords (see Abstract and column 3, lines 7 through 9 of Hendrickson).

However, as made clear in Hendrickson, the "relatedness" of any two items depends on substantive information associated with the items. That is, "non-regular relationship patterns" refers to substantive patterns. At column 3, lines 40 through 50, Hendrickson specifically discloses what "relatedness" means:

> Similarities between items can be based on many diverse characteristics of the items. For example, scientific papers can be similar if they contain common keywords. Alternatively, scientific papers can be similar if one paper cites the other paper, or if they both cite certain other papers. As another example, patents can be similar if they both cite the same other patent. Alternatively, they can be similar if they contain the same keywords, or if they share the same classification. Other characteristics can be used for assessing similarity, including geographic origin, time of origin, institutional origin, and authorship.

However, this does not meet the limitations set out in independent claims 1, 12, 23, 24 and 26. As explained above, the claimed invention is directed to techniques for automating navigation between data with dissimilar structures which comprises determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset. Hendrickson, as is evident, considers items based on the substantive content in the items , not based on structures associated with the items, as in the claimed invention.

That is, for example, Hendrickson compares such substantive content as references, keywords, authors, etc., in determining relatedness between two papers such that the two papers may be locationally represented in a geometric space representing the items. Thus, Hendrickson does not account for structural dissimilarity, as does the claimed invention, but rather, accounts for substantive similarity. This is a fundamental difference between the two approaches.

For a clear example of what type of data problem that the invention may provide a solution for with respect to dissimilar data structures, see the example provided in the context of QoS (quality of service) management at page 3, line 1, to page 4, line 27, of the present specification. This is significantly different than the substantive similarity problem that Hendrickson attempts to address.

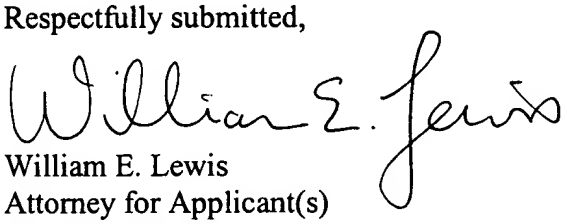
Hendrickson also fails to perform a distance metric computation after a determination of a best match, as does the claimed invention. Rather, Hendrickson uses a similarity computation to determine match or similarity. In fact, Hendrickson does not even determine a best match between items but merely determines how geometrically close two items should be placed in the geometric representation of the items. These are other fundamental differences between Hendrickson and independent claims 1, 12, 23, 24 and 26.

Morganstern fails to remedy the deficiencies described above with respect to Hendrickson. Applicant incorporates by reference herein all remarks made in his two previous responses with respect to Morganstern.

For at least the reasons given above, Applicant respectfully requests withdrawal of the §103(a) rejections of independent claims 1, 12, 23, 24 and 26. Further, not only due to their respective dependence on such independent claims but also because such claims recite patentable subject matter in their own right, Applicant respectfully requests withdrawal of the §103(a) rejections of dependent claims 2-11, 13-22, 25 and 27.

For at least the foregoing reasons, claims 1-27 are believed to be patentable over the cited references. As such, the application is asserted to be in condition for allowance, and favorable action is respectfully solicited.

Respectfully submitted,



Date: June 28, 2002

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IN THE CLAIMS

Claims 1, 12 and 23 have been amended as follows:

1. (Amended) A method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements, the method comprising the steps of:

determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset; and

computing at least one distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric.

12. (Amended) Apparatus for automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements, the apparatus comprising:

at least one processor operable to determine at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset, and to compute at least one distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric; and

a memory coupled to the at least one processor for storing the at least one target dataset.

23. (Amended) An article of manufacture for automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements, comprising a machine readable medium containing one or more programs which when executed implement the steps of:

determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset; and

computing at least one distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric.